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April 17, 2006

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Art Unit 2617

Attn: Mail Stop Amendment

Re: U.S. Utility Patent Application
Appl. No. 10/086,367; Filed: March 4, 2002
For: **Method and System for Frequency Up-Conversion**
Inventors: **SORRELLS et al.**
Our Ref: 1744.0020007

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Fifth Supplemental Information Disclosure Statement;
2. A listing of the cited documents on Form PTO-1449 (3 pages); and
3. One (1) return postcard.

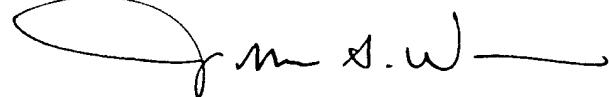
It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
April 17, 2006
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

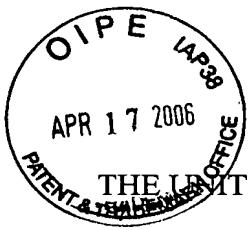
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Jeffrey S. Weaver
Attorney for Applicants
Registration No. 45,608

MQL/JSW:apg
Enclosures

521110_1.DOC



In re application of:
SORRELLS *et al.*
Appl. No.: 10/086,367
Filed: March 4, 2002
For: **Method and System for Frequency
Up-Conversion**

Confirmation No.: 3679
Art Unit: 2617
Examiner: Bhattacharya, Sam
Atty. Docket: 1744.0020007

Fifth Supplemental Information Disclosure Statement

Mail Stop Amendment

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Fifth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Fourth Supplemental Information Disclosure Statement filed on March 3, 2006 in connection with the above-captioned application.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Documents AH71, AI71 and AC72 are co-owned patents which are directed to related subject matter.

Documents AA72 and AB72 were cited in an Office Action in related U.S. Patent Application No. 10/394,069, filed March 24, 2003, entitled "Method and Circuit for Down-Converting a Signal," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 6,836,650, which has already been cited in the present application.

Documents AB72, AD72, and AE72 were cited in an Office Action in related U.S. Patent Application No. 11/173,021, filed July 5, 2005, entitled "Method and Circuit for Down-Converting a Signal," directed to related subject matter.

Documents AF72-AI72 and AA73-AG73 were cited in an Office Action in related U.S. Patent Application No. 10/305,299, filed November 27, 2002, entitled "Method and Apparatus for Improving Dynamic Range In a Communication System," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,339,459 and 5,517,688, which have already been cited in the present application.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below:

1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received

by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.

- 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.
- 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
 - a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
 - b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more

than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

- c. Attached is our PTO-2038 Credit Card Payment Form in the amount of _____ in payment of the fee under 37 C.F.R. § 1.17(p).
4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$ _____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:
- a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance.
1138 OG 37, 38.
6. A concise explanation of the relevance of the non-English language documents appears below in accordance with 37 C.F.R. § 1.98(a)(3):
7. In accordance with 37 C.F.R. § 1.98(a)(2), copies of the U.S. patents and patent publications cited on the attached Form PTO-1449 are not enclosed.
8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).
9. It is expected that the examiner will review the prosecution and cited art in the parent application nos. 09/379,497, filed August 23, 1999 (now U.S. Pat. No. 6,353,735), and 09/176,154, filed October 21, 1998 (now U.S. Pat. No. 6,091,940), in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution histories has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Jeffrey S. Weaver
Attorney for Applicants
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Date: 4-17-06

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(202) 371-2600

515968_1.DOC



FORM PTO-1449

FIFTH SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1744.0020007APPLICATION NO.
10/086,367FIRST NAMED INVENTOR
David F. SORRELLSFILING DATE
March 4, 2002ART UNIT
2617

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
.	AH71	7,010,286 B2	03/2006	Sorrells et al.			
	AI71	7,010,559 B2	03/2006	Rawlins et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER INITIAL	DOC. REF.	CITATION
	AN	
	AO	
	AP	
	AQ	
	AR	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT			ATTY. DOCKET NO. 1744.0020007		APPLICATION NO 10/086,367		
			FIRST NAMED INVENTOR David F. SORRELLS				
			FILING DATE March 4, 2002		ART UNIT 2617		
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	SEARCH DATE
	AA72	5,131,014	07/1992	White			
	AB72	6,393,070 B1	05/2002	Reber			
	AC72	7,016,663 B2	03/2006	Sorrells <i>et al.</i>			
	AD72	3,694,754	09/1972	Baltzer			
	AE72	4,931,716	06/1990	Jovanovic <i>et al.</i>			
	AF72	3,617,898	11/1971	Janning, Jr.			
	AG72	3,764,921	10/1973	Huard			
	AH72	4,158,149	06/1979	Otofiji			
	AI72	4,380,828	04/1983	Moon			
FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
EXAMINER INITIAL	DOC. REF.	CITATION					
	AN						
	AO						
	AP						
	AQ						
	AR						
EXAMINER				DATE CONSIDERED			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.							

FORM PTO-1449 FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT			ATTY. DOCKET NO. 1744.0020007		APPLICATION NO. 10/086,367		
			FIRST NAMED INVENTOR David F. SORRELLS				
			FILING DATE March 4, 2002		ART UNIT 2617		
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	
	AA73	4,562,414	12/1985	Linder et al.			
	AB73	4,814,649	03/1989	Young			
	AC73	4,845,389	07/1989	Pyndiah et al.			
	AD73	5,172,019	12/1992	Naylor et al.			
	AE73	5,263,198	11/1993	Geddes et al.			
	AF73	5,551,076	08/1996	Bonn			
	AG73	5,633,610	05/1997	Maekawa et al.			
	AH						
	AI						
FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
EXAMINER INITIAL	DOC. REF.	CITATION					
	AN						
	AO						
	AP						
	AQ						
	AR						
EXAMINER				DATE CONSIDERED			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.							